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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Application Number	
		Filing Date	
		First Named Inventor	Ronald D McCallister
		Art Unit	
		Examiner Name	
Sheet 1	of 3	Attorney Docket Number	2298-010

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
/E.B./		US- 5,778,029	07/07/1998	Kaufmann	
		US- 6,282,247	08/28/2001	Shen	
		US- 6,222,878	04/24/2001	McCallister, et al.	
		US- 6,512,800	01/28/2003	Amir, et al.	
		US- 2002/0193078A1	12/19/2002	Shearer, III, et al.	
		US- 5,721,756	02/24/1998	Liebetreu, et al.	
		US- 5,949,832	09/07/1999	Liebetreu, et al.	
		US- 6,442,217	08/27/2002	Cochran	
		US- 5,049,832	09/17/1991	Cavers	
		US- 2003/0063683A1	04/03/2003	Shearer, III, et al.	
		US- 2003/0063682A1	04/03/2003	Shearer, III	
		US- 6,141,390	10/31/2000	Cova	
		US- 5,867,065	02/02/1999	Leyendecker	
		US- 5,732,333	03/24/1998	Cox, et al.	
		US- 2003/0146787A1	08/07/2003	Hedberg, et al.	
		US- 2003/0156658A1	08/21/2003	Dartois	
		US- 2003/0123568A1	07/03/2003	Ophir, et al.	
		US- 2003/0179831A1	09/25/2003	Gupta, et al.	
/E.B./		US- 2001/0005402A1	06/28/2001	Nagatani, et al.	

FOREIGN PATENT DOCUMENTS						
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Examiner Signature	/Emmanuel Bayard/	Date Considered	01/28/2008
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Substitute for form 1449/PTO <h2 style="text-align: center; margin: 10px 0;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <p style="text-align: center; font-size: small;">(Use as many sheets as necessary)</p>	<h3 style="text-align: center; margin: 0;">Complete if Known</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 60%;">Application Number</td><td></td></tr> <tr><td>Filing Date</td><td></td></tr> <tr><td>First Named Inventor</td><td>Ronald D McCallister</td></tr> <tr><td>Art Unit</td><td></td></tr> <tr><td>Examiner Name</td><td></td></tr> <tr><td>Attorney Docket Number</td><td>2298-010</td></tr> </table>	Application Number		Filing Date		First Named Inventor	Ronald D McCallister	Art Unit		Examiner Name		Attorney Docket Number	2298-010
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/E.B./		US- 5,113,414	05/12/1992	Karam, et al.	
		US- 2002/0064236A1	05/30/2002	Matsuoka, et al.	
		US- 6,240,278	05/29/2001	Midya, et al.	
		US- 6,236,837	05/22/2001	Midya	
		US- 4,910,698	03/20/1990	McCartney	
		US- 4,902,979	02/24/1990	Puckette, IV	
		US- 5,454,007	09/26/1995	Dutta	
		US- 4,888,557	12/19/1989	Puckette, IV, et al.	
		US- 4,878,029	10/31/1989	Saulnier, et al.	
		US- 4,270,179	05/26/1981	Sifford, et al.	
		US- 4,290,139	09/15/1981	Walsh	
		US- 4,422,175	12/20/1983	Bingham, et al.	
		US- 4,633,482	12/30/1989	Sari	
/E.B./		US- 4,053,837	10/11/1977	Ryan, et al.	
		US-			
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NON PATENT LITERATURE DOCUMENTS

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		CAVERS, "The Effect of Quadrature Modulator and Demodulator Errors on Adaptive Digital Predistorters for Amplifier Linearization" IEEE Trans on Veh Tech, Vol46, #2, 05/97.	
		DING & ZHOU, "Effects of Even-order Nonlinear Terms on Power Amplifier Modeling and Predistortion Linearization" IEEE Transactions on Vehicular Technology, 08/2002	
	/	GRASS, BODHISATYA & MAHARATNA, "A Dual-Mode Synchronous/Asynchronous CORDIC Processor" IHP, IM Technologiepark, 2002.	
	/	OHLSSON, "Studies on Implementation of Digital Filters With High Throughput and Low Power Consumption" Institute of Technology, Dept of Electrical Engineering, p 61-73, 06/03.	
		RAICH, QIAN & ZHOU, "Digital Baseband Predistortion of Nonlinear Power Amplifiers Using Orthogonal Polynomials" Proc. ICASSP 2003, p 689-692, Hong Kong China, 04/2003.	
		GODAVARTI "Multiple Antennas in Wireless Communications" Array Signal Processing and Channel Capacity" University of Michigan, P 16-52, 2001.	
		"Pact Application Note: Adaptive Filter Based on the LMS-Algorithm"	
	/	CHOO "Mapping LMS Adaptive Filter IP Core to Multiplier-Array FPGA Architecture for High Channel-Density VOIP Line Echo Cancellation" CMP United Business Media, 2003.	
	/	WIDROW, MCCOOL & BALL, "The Complex LMS Algorithm" Information Systems Laboratory, Naval Undersea Center, Fleet Engineering Dept, 08/19/1974.	

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Application Number	10/766,768
Filing Date	27 January 2004
First Named Inventor	Ron McCallister
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/E.B./		US- 2003/0227981	12/11/2003	Vella-Coleiro, et al	
		US- 2003/0076894	04/24/2003	Jin, et al.	
		US- 2002/0180523	12/05/2002	Okubo, et al.	
		US- 2004/0021517	02/05/2004	Irvine, et al.	
		US- 2004/0013206	01/22/2004	Gamm, et al.	
		US- 2003/0020538	01/30/2003	Kim	
		US- 5,760,646	06/02/1998	Belcher, et al.	
		US- 6,118,335	09/12/2000	Nielsen, et al.	
		US- 5,923,712	07/13/1999	Leyendecker, et al.	
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/E.B./		GLENTIS, KOUKOULAS, & KALOUPSIDIS "Efficient Algorithms for Volterra System Identification" IEEE Transactions on Signal Processing, Vol 47, No. 11, Nov 1999.	
		DING, RAICH, & ZHOU "A Hammerstein Predistortion Linearization Design Based on the Indirect Learning Architecture" Georgia Inst. of Tech. School of Elect. & Comp. Engineering.	
		RAZZAGHI & CHANG "A 10-b, 1GSample/s ADC using SiGe BiCMOS Technology" Electrical Engineering Department, UCLA.	
		DANESHRAD "DSP VLSI Engine for Electronic Linearization of Fiber Optic Links" Wireless Integrated Systems Research Group, UCLA, 02/27/2001.	
		FOX "Analysis and Dynamic Range Enhancement of the Analog-to-Digital Interface in Multimode Radio Receivers" Virginia Polytechnic Inst. & State Univ. 02/1997.	
		HUMMELS "Linearization of ADCs and DACs for All-Digital Wide-Bandwidth Receivers" Depart. of Electrical & Comp. Engineering, Univ. of Maine, 09/09/1999.	

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